



.... adding an electronic identity to bottles for counting, traceability & authenticity

## Make any bottle smart

- 'item level' stock control
- loss prevention
- brand protection
- consumer engagement

## CapTag® low cost RFID electronic labels generate business value

### - in Retail

maintain service levels - with reduced inventory levels

- increase
  - on-shelf availability
  - backroom to front-of-store inventory accuracy and replenishment
- reduce
  - stock outs
  - time and labour costs with automated inventory
  - shrinkage

track bottles 'live' as they move through the retail floor  
... with EAS (Electronic Article Surveillance) functionality

### - in Hotels, Clubs & Restaurants

reduce time and labour costs with automated inventory

- without disturbing 'fine wines'

enable instant, quick & accurate stock checks – even daily  
monitor patterns of stock loss, deter staff theft

... & deliver a 4% gross margin increase

### - & for Brands

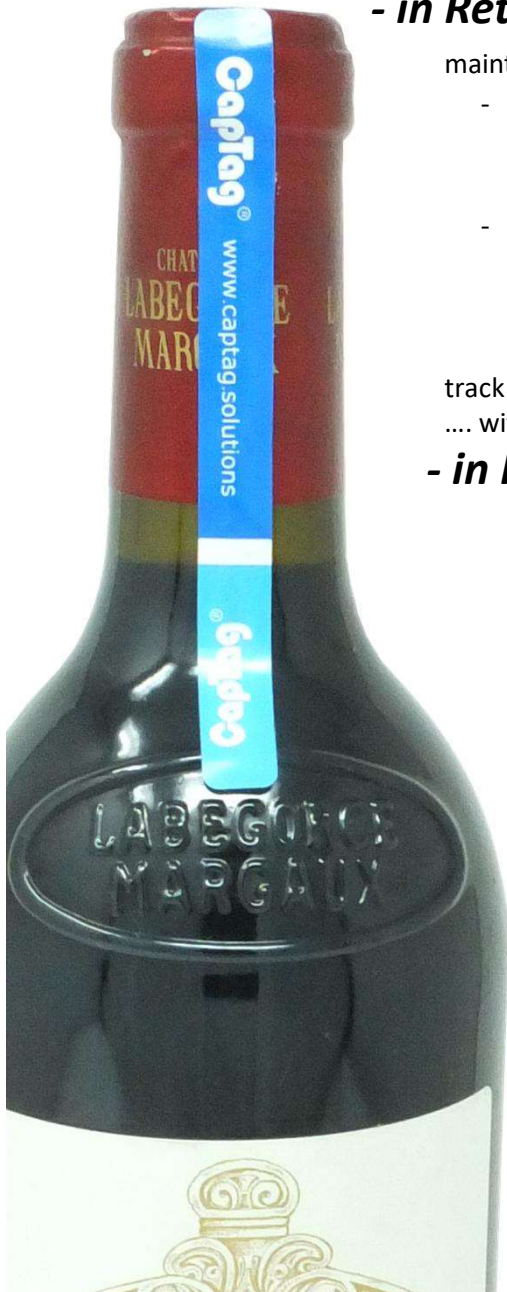
#### Brand Protection

- complete 'through the supply chain' automated tracking, accuracy and control
- manage 'grey market' trading

#### Consumer Engagement

smartphone readable 'smart –CapTag' connects individual consumers directly to the brand

- generating interactive consumer communication & engagement
- enabling new direct personalised marketing services including product information & loyalty programs,  
... building brand loyalty



## The Technical Bit

### CapTag® standard & smart labels

..... for Wine, Spirits & Beer



Identification and tracking solutions based on the patented CapTag® family of low cost paper-thin standard-CapTag® UHF RFID and combination UHF & NFC smart-CapTag® labels now provide a revolutionary way of capturing the electronic identity of bottles of:

- wine, spirits, beer or soft drinks  
..... and perfumes, cosmetics & blood
- with versions for packaged meat and cheese

Conventional RFID labels, widely used to identify and track garments, don't work with bottles of liquids because the liquid absorbs the radio waves on which all conventional labels depend on for their communication.

Now, CapTag® labels have been developed, and patents granted, to uniquely use that radio absorption to read bottles, at high speed and from metres away

... and, as no line of sight is needed, those bottles can also be read inside sealed cartons, wooden cases, or when clustered on shelves or conveyors – unlike QR or traditional barcodes.

CapTag® has also developed innovative short range RFID reader antennas that work with all versions of CapTag® labels for 'smart cabinets' & 'shelves' applications .

### CapTag® labels

for Perfumes, Plastic Spray Bottles, Pharmavials & Motor Oil



## Features

CapTag® based systems can be used globally, as they are totally compatible with:

- ISO/IEC standard Gen 2 RFID readers operating at the permitted UHF bands in each ITU region of the world.
- 'smart-CapTag®' dual frequency labels also support ISO/IEC14443 Type A, NFC Forum™ Type 2 specifications at 13.56MHz

Each 'standard-CapTag®' UHF label contains: 96-bit Unique Tag Identifier (TID) factory locked, including 48-bit unique serial number; a 128 or 96bit code area, programmable with an EPC identity; & optionally 32bits of user programmable data where the EPC area is 96 bit.

Secure data relating to the bottle ID can be stored on web-accessed data bases for additional security

.... or by using the Product Status Flag bit enabling the CapTag® label to be used as EAS (Electronic Article Surveillance) tag without the need for a back-end data base

Each 'smart-CapTag®' NFC/UHF label is manufactured with a 96-bit unalterable unique identifier (UID) with the same UID number being used by both RF protocols to ensure full traceability.

For the NFC interface, the smart counter increments its value each time the NFC message has been read by the end-user.

**CapTag**  
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